Institute of Ecology. pp 145-148.

Roy, S.P. (1982): Seasonal variations and species diversity of aquatic Coleoptera in a freshwater pond at Bhagalpur, India. *Oriental Ins.* 16(1): 55-62.

TONAPI, G.T. & V.A. OZARKAR (1969): A study on the

aquatic Coleoptera of Poona (Maharashtra). J. Bombay nat. Hist. Soc. 66(3): 533-538.

VIJAYAN, V.S. (1991): Keoladeo National Park Ecology Study, Final Report, 1980-1990. Bombay Natural History Society, Bombay.

24. CONGREGATION OF COMMON CROW *EUPLOEA CORE* BUTTERFLIES AT BANNERGHATTA NATIONAL PARK

Some adult danaids like Danaus limniace, D. chrysippus, and Euploea core have been observed to feed on Heliotropium indicum (Amladi, 1975) and Crotalaria retusa (Chaturvedi & Satheesan, 1979) to acquire pyrrolizidine alkaloids contained in them. Trichodesma (Chaturvedi, 1994) and Paracaryum coelestinum (Haribal, 1992) were subsequently added to this list.

In Bannerghatta National Park, 25 km from Bangalore city, Lantana camara and Chromolaena odorata grow profusely in many parts of the park. These plants were cleared along the main road leading into the park, both by cutting down branches and by uprooting them and leaving them along the roadside.

I visited the National Park twice, on August 23 and August 30, 1998, and on both occasions it had rained the previous evening and through the night.

On both days many Common Crow Euploea core butterflies were noticed congregating only on dry roots of Chromolaena odorata and not on those of Lantana. However, none of the other Danaids were seen doing so, though the Striped Tiger Danaus genutia and the Dark Blue Tiger D. melissa were seen in the area (except possibly for the Double-banded Crow Euploea coreta, a forewing of which was found in the vicinity).

In the past, I have noticed many danaids visiting *Heliotropium* spp. and *Crotalaria*. It is for the first time that I have seen a congregation of Common Crow on the exposed roots of *Chromolena odorata*.

Is it possible that Euploea core acquire some alkaloids from the roots of Chromolaena odorata like they do by visiting Heliotropium indicum and other plants?

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Editor's note: The author's assumption is correct. Males of many danaine butterflies including members of Euploea are strongly attracted to withered or damaged plants of Asteraceae, to which they apply fluid by means of their proboscids and reimbibe it with dissolved pyrrolizidine (PAs). These PAs in danaine butterflies serve a dual function: as male pheromone precursors and as protective chemicals. It has also been reported that females are also attracted to PA plants and PAs have been observed in females of several danaines. It may be useful to census the sex of adults of Euploea core aggregating in Chromalaena odorata to find out if females are also attracted to the damaged plants, for females are supposed to gather PAs from nectar of flowers of Asteraceae and Boraginaceae.

REFERENCES

AMLADI, S.R. (1975): Danaid Butterflies attracted to Heliotropium indicum (Boraginaceae), an alkaloid containing plant. J. Bombay nat. Hist. Soc. 72(2): 585-587.

Chaturvedi, N. & S.M. Satheesan (1979): Attraction of Butterflies to *Crotalaria retusa* (Papilionaceae) at Khandala, W. Ghats. J. Bombay nat. Hist. Soc. 76: 534-535.

HARIBAL, MEENA (1992): The Butterflies of Sikkim Himalaya and their Natural History. Sikkim Nature Conservation Foundation (SNCF), Gangtok, Sikkim.